

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Jeffrey R. Thomas et al.	§	
	§	Confirmation No.: 9675
	§	
Application No.: 09/995,037	§	Group Art Unit: 1793
	§	
Filed: November 26, 2001	§	Examiner: Ip, Sikyin
	§	
For: ON-SITE INDUCTION HEATING	§	Atty. Docket: ITWO:0023/SWA/EUB
METHOD AND APPARATUS	§	13224
	§	

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<u>August 10, 2009</u> Date	<u>/Lee Eubanks/</u> L. Lee Eubanks IV

**REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41 AND IN  
RESPONSE TO THE EXAMINER'S ANSWER MAILED JUNE 9, 2009**

This Reply Brief is being filed pursuant to 37 C.F.R. § 41.41 and in response to the Examiner's Answer mailed on June 9, 2009. In the interest of brevity, Appellants address below only those issues or arguments raised by the Examiner's Answer that are particularly noteworthy. In view of Appellants' attempt to avoid repetition in this Reply, Appellants respectfully request that the Board consider Appellants' complete arguments set forth in the previously filed Appeal Brief.

***Correction to Grounds of Rejection in Appellants' Appeal Brief***

As a preliminary matter, Appellants have discovered a minor error in the listing of the grounds of rejection to be reviewed summarized in Appellants' Appeal Brief filed March 9, 2009. Particularly, on page 7 of the previously filed Appeal Brief, the Sixth Ground of Rejection for Review should instead read:

Whether the Examiner erred in rejecting claims 79-87 and 91-94 under 35 U.S.C. § 103(a) as unpatentable over the Henderson et al., Couffet et al., Antier et al., Duncan, and Somes references, in view of U.S. Patent No. 5,874,713 to Cydzik et al. ("the Cydzik et al. reference").

(Underlining added to indicate correction). Appellants respectfully submit that the arguments regarding the Sixth Ground of Rejection on pages 25-27 of the Appeal Brief already address this ground of rejection (as presently corrected) and request consideration of those remarks by the Board.

***First, Second, and Third Grounds of Rejection***

Appellants have addressed the deficiencies of these grounds of rejection (the obviousness-type double patenting rejections) on pages 8-14 of the Appeal Brief filed March 9, 2009, and these rejections are believed to be in error for at least the reasons provided in the Appeal Brief. Although the Examiner attempted to provide new justification for these grounds of rejection in the Examiner's Answer mailed June 9, 2009, this new justification only compounds the Examiner's previous errors.

In the Appeal Brief (pages 8-16), Appellants' explained how the claims of the instant application recite features absent from, and not rendered obvious by, various claims of the '483 patent (for the first ground of rejection), the '483 patent in view of the Somes reference (for the second ground of rejection), and the '439 patent (for the third ground of rejection). In response to these arguments, the Examiner merely copied a handful of claims and asserted: "But, for one-way obviousness determination that a

power source and coupleable unit of USP '483 *are encompassed by instant claim 1.*" See Examiner's Answer, pp. 8 and 11 (regarding both of the first and second grounds of rejection) (emphasis added); *see also id.* at p. 12 ("But, for one-way obviousness determination that a power source and coupleable unit of USP '439 *are encompassed by instant claim 1.*" (Emphasis added.)). From this statement, it appears that the Examiner believes that the present double patenting rejections are proper because features of the claims of the '483 and '439 patents included in the pending claims of the instant application.

Even assuming for the sake of argument that the one-way obviousness inquiry would be the correct line of inquiry for the instant case, Appellants respectfully note that such an inquiry must focus on whether the pending claims would have been anticipated by or obvious in view of the claims of the '483 or '439 patents, *not whether the pending claims include features in common with* (or would render obvious) *the claims of the '483 or '439 patents.* The Examiner appears to be applying the wrong legal standard, and has not addressed the deficiencies of the rejections previously pointed out in pages 8-16 of the Appeal Brief filed March 9, 2009. Consequently, Appellants respectfully submit that the Examiner's First, Second, and Third Grounds of Rejection are erroneous and cannot be sustained.

#### ***Fourth Ground of Rejection***

Applicants previously addressed this ground of rejection on pages 16-21 of the Appeal Brief filed March 9, 2009, and submit that this rejection was made in error by the Examiner for at least the reasons articulated in the Appeal Brief.

In further regard to the sub-group of claims including independent claims 1 and 47, however, it is noted that these claims generally recite a *single continuous cooling path* that dissipates heat from both (1) an induction heating cable and (2) an electrical lead extending from a portable heating system to the induction heating cable. The Examiner previously argued that the Henderson et al. reference disclosed such a single continuous

cooling path, but the Examiner's Answer mailed June 9, 2009, appears to have withdrawn this erroneous argument and does not appear to even address this element. *Compare* Final Office Action mailed November 12, 2008, pp. 8-9, *with* Examiner's Answer mailed June 9, 2009, pp. 15-16 (which cites a portion of the Henderson et al. reference regarding the assembly of a handle for manipulating heating element 22, without any explanation as to why the Examiner believes this passage to be relevant).

As discussed in the previously-filed Appeal Brief, the Henderson et al. reference clearly discloses a first cooling path for cooling electrical leads 16 and 18, and a second, separate cooling path for cooling the induction heating element 22. These two distinct cooling paths cannot be reasonably considered a "single continuous cooling path" as generally recited by independent claims 1 and 47. The Examiner has not provided even a *scintilla* of evidence or logic in support of a contrary conclusion. As such, the Fourth Ground of Rejection is also the result of Examiner error.

### ***Fifth Ground of Rejection***

Applicants previously addressed this ground of rejection on pages 21-25 of the Appeal Brief filed March 9, 2009, and submit that this rejection was made in error by the Examiner for at least the reasons articulated in the Appeal Brief.

Appellants note that claim 57 (which is believed representative of claims 57-62 and 64-78 for purposes of the fifth ground of rejection) recites "a flow switch ... configured to detect the cooling fluid *returning from the fluid-cooled induction heating cable* and to effect *discontinuation of* the output power when the amount of the cooling fluid returning from the fluid-cooled induction heating cable *is below a threshold amount*" (emphasis added). In his "Response to Argument" section of the Examiner's Answer, the Examiner asserts that Henderson et al. discloses that "[v]alve (120[]) turns power to heating element (22) off if no (low) coolant is circulating. Valve (120[]) turns power to heating element (22) on if detectable coolant is circulating." *See* Examiner's

Answer, p. 17. This assertion is a gross mischaracterization of the Henderson et al. reference.

The valve 120 of Henderson does not turn the power to heating element 22 off and on based on whether detectable coolant is circulating. Indeed, the passage of the Henderson et al. reference cited by the Examiner in support of his assertion (and previously cited by Appellants in the Appeal Brief filed March 9, 2009) actually teaches quite the opposite – that the valve 120 is actuated to an open position to supply cooling water to the induction heating element only when power is delivered to the heating element (i.e., coolant flow through valve 120 is turned on and off based on whether power is being provided to the heating element 22). *See* Examiner's Answer, p. 17; Appeal Brief filed March 9, 2009, p. 22; Henderson et al., col. 3, lines 65-71.

The Examiner also relies on the Somes reference as obviating this deficiency of the Henderson et al. reference. Particularly, the Examiner believes the “flow switch of Somes operates same as instant claimed that turns power off when low cooling water is detected.” *See* Examiner's Answer, p. 18. He is wrong.

Operation of the Somes system (including flow sensing devices 14 and 17) is discussed in pages 23-25 of the Appeal Brief filed March 9, 2009. Appellants have also provided a detailed explanation as to why the flow sensing devices 14 and 17 are not analogous to the flow switch recited in claim 57. While the Examiner cited a passage of the Somes reference that generally notes the inducing coil can be deenergized if the heads are not registered or if the coil is not properly cooled, and that flow switches may prevent energizing of the inducing coil, this passage is consistent with the points made by Appellants in the Appeal Brief regarding the deficiencies of the Somes reference with respect to the recitations of the pending claims. *See* Examiner's Answer, p. 18. The Examiner, however, has not addressed the points raised by Appellants with respect to the deficiencies of the Somes reference, has not provided any cogent analysis with respect to the flow switch recited in claim 57, and has failed to establish a *prima facie* case of

obviousness with respect to claim 57. Accordingly, Appellants respectfully request reversal of this rejection.

***Sixth Ground of Rejection***

Applicants previously addressed this ground of rejection on pages 25-27 of the Appeal Brief filed March 9, 2009, and submit that this rejection was made in error by the Examiner for at least the reasons articulated in the Appeal Brief.

**Conclusion**

For each of the reasons set forth above, as well as the reasons set forth in the Appeal Brief filed March 9, 2009, Appellants respectfully request that the Board reverse each of the six improper rejections of the pending claims imposed by the Examiner. If the Examiner or the Board wishes to resolve any other issues by way of a telephone conference, the Examiner or Board is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

Date: August 10, 2009

/Lee Eubanks/  
L. Lee Eubanks IV  
Reg. No. 58,785  
FLETCHER YODER  
P.O. Box 692289  
Houston, TX 77269-2289  
(281) 970-4545